

decentralizing power



"You've got to think about big things while you're doing small things, so that all the small things go in the right direction."

Alvin Toffler

futurist, author of The Third Wave (1980) and father of the term prosumer



Prosume's goal is to become the sustainable, independent and digitized smart marketplace where prosumers can freely exchange energy. Based on blockchain technology, the platform promotes and accelerates the adoption of newer, more efficient energy resiliency models.

Basing these services on the immutable quality of distributed ledger technology gives prosumers more transparency on their consumption and allows them to control their energy and financial flows. Prosume's blockchain-based services of smart billing and automated payments enables prosumers to be more conscious about production and consumption, tracking energy flows down to the kilowatt per minute.

The platform architecture also enables prosumers to sell excess generated energy to other prosumers, consumers, or the market. This digital peer-to-peer exchange results in a more efficient ecosystem for all players, enabling transactive energy relationships for prosumers.



Problem How it stands

The energy industry, like many others, is hurtling towards a digital era.

Currently, grids aren't equipped with the technology required to efficiently supply a steady amount of energy throughout the day, and the matching of supply with demand is a crucial factor in the sector.

The inability of prosumers to exchange their energy, cumbersome billing processes, a lack of demand-response policies, missing storage infrastructure and the consequential problems of renewable energy planning are just a few of the issues that exacerbate financial and energy wastage, rendering the entire system inefficient and the individual <u>powerless</u>.



 $\mathsf{Solution}$

Prosumers: a citizen-focused future

Prosume's blockchain-based services of smart billing and automated payments enables consumers to not only be more consumption-conscious but also track spend down to the kilowatt per minute. And, while it isn't currently possible to sell one's excess generated energy, the platform's architecture enables such interactions so that markets will be ready once regulatory frameworks permit these mechanisms.

This digital peer-to-peer exchange results in a more efficient ecosystem for all players, enabling transactive energy relationships for prosumers. Basing these services on the immutable quality of distributed ledger technology gives prosumers more transparency on their consumption and allow them to control their energy and financial flows.

The perks of using **Blockchain**

SECURE, INCORRUPTIBLE DATA

The immutable quality of distributed ledger means that consensus amongst all nodes in a network is required for information to be validated, resulting in tamper-proof data storage.

ENHANCED TRUST IN A TRUSTLESS SYSTEM

A decentralised approach to certifying all energy transactions between validated players in the ecosystem: consumers, prosumers, suppliers (utilities) and grid operators (distribution and transmission) means that power is not concentrated in the hands of a few, but spread out amongst many.

TRANSPARENCY & RELIABILITY

The universally accessible nature of blockchains means that each and every stakeholder can verify data with the assurance that it is correct and indisputable.



Our services

5 ways Prosume revolutionises the energy sector:

i) Smart contracts

ii) Smart billing

iii) Automated payments

iv) Peer-to-peer energy exchange

v) Grid balancing





i. Smart contracts

We guarantee transparent, on-demand energy flows, automatically regulated and settled by smart contracts, designed to be open for integration with any third party application.

ii. Smart billing

Prosume allows each user to precisely and instantly monitor their energy consumption and expenditure, providing each load's data, encouraging sustainable habits and generating energy savings while preserving comfort and choice.

iii. Automated payments

Prosume provides user-friendly, reliable payment methods, ensuring energy providers benefit from daily, automatic and precisely measured utility bill payments from offtakers, minimising delays and collection costs.



iv. Peer-to-peer energy exchange

Validated energy players and their data use their unique blockchain IDs to automatically seek out the best solution, allowing multiple permissioned blockchains to be interconnected. The platform also encourages communities to adopt storage solutions in order to maximise local self-consumption, balance the system and best take advantage of aggregated capacity.

v. Grid balancing

Algorithms constantly profile and schedule identified players and their levels of energy production and consumption in a demand-side management tool, allowing grid operators to keep the grid balanced. Our solution allows significant demand-response functions, providing balancing tools to TSOs/DSOs in order to ease the transition towards decentralized energy systems and reduce overall grid operation costs.



P2P aggregation

Stakeholders

Applications

Digitalisation of

Energy

Transactive Energy Interactions

Demand Side Management

Smart Grids

Demand-Response

P2P Exchange

Interoperability

Cost reductions

Energy Efficiency



Thank you

Prosume is powered by Mangrovia Blockchain Solutions, a software house specialising in applied cryptography technology. We don't try to make your ideas and projects fit the blockchain, rather, we harness its power to give them life.

Contact us for more

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